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IN THE CLAIMS

Amendments to the Claims

A Listing of Claims is provided as follows and will replace any previous listing. No new matter has been added.

Listing of Claims:

1-55. (Canceled)

56. (Currently Amended) An article comprising particles, a substrate and an organic film, wherein
the particles are fixed on the substrate via the organic film,
a structure described below is defined by the substrate, the organic film and the particle:

particle-X1-R1-Y-R2-X2-substrate

where X1 and X2 are -O-Si- or -S-,

~~R1 and R2 are the same or different and each is alkyl having 1 to 30 carbon atoms,~~
wherein R1 and R2 are the same or different and each is a saturated hydrocarbon that includes 1 to 30 carbon atoms,

wherein R1 and R2 are directly bonded to said Y group and said Y group consists of a single moiety R1-Y-R2 is at least one selected from the group consisting of:

[[R1]]-CO-[[R2]];
[[R1]]-OSi-[[R2]];
[[R1]]-SiO-[[R2]];
[[R1]]-φ-NH-[[R2]];
[[R1]]-NH-φ-[[R2]];
[[R1]]-φ-CH₂-φ-[[R2]];
[[R1]]-CH=N-[[R2]];
[[R1]]-N=CH-[[R2]];
~~R1-φ-R2;~~
[[R1]]-φ-CO-[[R2]];
[[R1]]-CO-φ-[[R2]];

[[R1]]- ϕ -CH₂- ϕ (-CHO)-[[R2]];
[[R1]]- ϕ (-CHO)-CH₂- ϕ -[[R2]];
[[R1]]-NH-CO-NH-[[R2]];
[[R1]]-CO-NH-O-[[R2]];
[[R1]]-O-NH-CO-[[R2]];
[[R1]]-CHOH-CH₂-NH-[[R2]];
[[R1]]-NH-CH₂-CHOH-[[R2]];
[[R1]]-CO-O-[[R2]];
[[R1]]-O-CO-[[R2]];
[[R1]]-NH-CO-[[R2]]; and
[[R1]]-CO-NH-[[R2]],

where ϕ is a benzene ring[,] and ~~R1 and R2 are the same or different and each is an alkyl having 1 to 30 carbon atoms.~~

57. (Previously Presented) The article according to claim 56, wherein the particles are aligned as a single layer of an assembly film.

58. (Previously Presented) The article according to claim 56, wherein the particles are aligned in a form of accumulated layers, and the particles are bonded to each other and immobilized.

59. (Previously Presented) The article according to claim 56, wherein an average diameter of the particles is in a range from 0.5 nm or more to 50 nm or less.

60. (Previously Presented) The article according to claim 56, wherein the particles are patterned and aligned on a surface of the substrate.

61. (Previously Presented) The article according to claim 56, wherein the particles are aligned in a concave portion of a concave and convex pattern formed on a surface of the substrate.

62. (Previously Presented) The article according to claim 61, wherein a width of the concave portion is not less than five times and not more than 30 times an average diameter of the particles.
63. (Previously Presented) The article according to claim 56, wherein the particles are at least one selected from the group consisting of metal, metal oxide, semiconductor, amphoteric element, amphoteric element oxide, and resin.
64. (Previously Presented) The article according to claim 56, wherein the particles are magnetic particles.
65. (Previously Presented) The article according to claim 56, wherein
the substrate is formed of at least one material selected from the group consisting of metal, metal oxide, semiconductor, amphoteric element, amphoteric element oxide, and resin.
66. (Previously Presented) A semiconductor device having a barrier layer serving as a tunnel barrier layer provided on a semiconductor substrate and comprising the article of claim 56,
wherein the particles are immobilized and aligned on the barrier layer, and
the semiconductor device comprises an electrically insulating layer provided on the barrier layer and the fine particle layer.
67. (Previously Presented) A semiconductor memory device having an insulating gate semiconductor (MIS) type transistor structure comprising a barrier layer serving as a tunnel barrier layer between a gate insulating film of the MIS type transistor structure and a semiconductor substrate, the barrier layer provided on the semiconductor substrate, and comprising the article of claim 56,
wherein the particles are immobilized and aligned on the substrate.